

Model MSTX

4 Tension ranges available from 1 - 200 g up to max. 1 - 2000 g

Electronic Tension Meter with take up fixture for sewing machines for adjusting the yarn brakes at constant conditions

Special features:

- Integrated electronic tension meter
- Motorized take-up fixture to have constant speed of the thread 9 m/min
- Coloured, backlight TFT-display with 3 different display modes:
 - numeric
 - numeric with live bargraph
 - numeric with graph (time-tension)
- Special fixture to determine shuttle tension
- Vacuum base for positioning the unit on the work plate (height adjustable)
- USB-interface
- Memory for 60.000 readings
- 5 different memory modes:
 - **Mode S:** statistics only
 - **Mode H:** storage of the X-Y-diagram for reviewing after finishing a series of measurement
 - **Mode C:** continuous logging over a user set time and max. 999 series of measurement (2 Hz)
 - **Mode F:** as C with higher sampling rate (200 Hz)
 - **Mode D:** storage of single readings and statistic
- Software **Tension Inspect 3** for displaying real-time readings on a PC (optional)
- Selectable units of measurement: cN, g, N, lb
- User-set MIN and MAX alarms with indication on TFT display if reading is out of limits
- Adjustable electronic damping for better reading when tension fluctuates
- 3 separate calibration material memory locations for custom calibrations
- Menu set-up in English or German language



User-friendly TFT full-text display
 Some functions can be password protected.

Seam samples

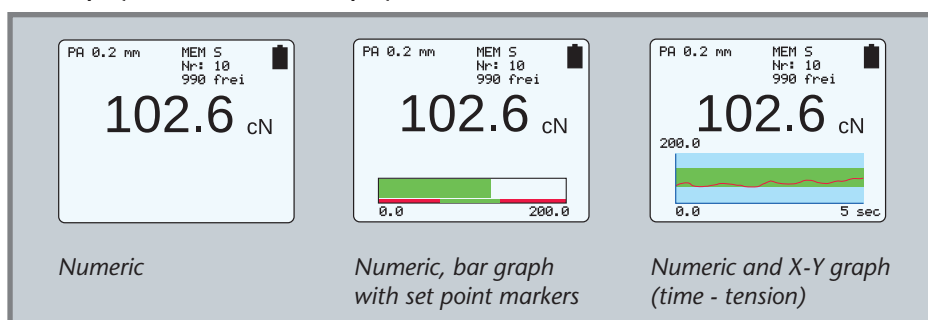


Too much thread results in not sufficient linkage of the thread with the used material



Seam with correctly adjusted thread tension

TFT-display with 3 selectable display modes



Standard features:

- Battery or mains operation
- Rugged aluminium housing
- CE certified, interference resistant against static electrifications
- Optionally available:
Inspection Certificate 3.1 with calibration report



The tension meter can be connected to PC for monitoring or downloading stored data

Available Models

Tension Range
*SCHMIDT-Calibration material**

MSTX-200	1 - 200g	0.12 mm Ø
MSTX-500	1 - 500g	0.20 mm Ø
MSTX-1000	1 - 1000g	0.30 mm Ø
MSTX-2000	1 - 2000g	0.50 mm Ø

* Suitable for 95 % of applications - PA = Polyamide Monofilamente

Specifications

Calibration:	According factory procedure
Accuracy:	± 1 % FS* ± 1 Digit (typical ± 0.5 % FS*)
Memory for material curves:	1 for SCHMIDT calibration plus 3 for customized calibrations
Measuring units:	cN, g, N, lb
Overrange:	Approx. 10 % FS*, without accuracy guarantee
Overload protection:	200 % FS*
Measuring principle:	Strain gauge bridge
Measuring roller deflection:	Max. 0.5 mm
Sampling rate internal:	ca. 1 kHz
Sampling rate:	Max. 200 Hz (200 readings/sec)
Display update rate:	Approx. 2 times per second
Display:	Colour-TFT 128 x 160
Cal. Adjustment:	± 10 steps in 1 % increment
Output signal:	USB
Memory:	60.000 values at 999 measuring periods
Memory modes:	5 memory modes with statistical evaluation and PEAK capture

3 different displays:	Numeric, Numeric with bargraph, X-Y-diagram (time - tension)
Damping:	Adjustable electronic damping (averaging)
Vacuum base:	Adjustable height for measuring position above working plate 120 to 220 mm
Temperature coefficient:	Gain: less than ± 0.01 % FS* /°C
Temperature range:	10 - 45 °C
Air humidity:	85 % RH, max.
Power supply:	Li-Ion battery (approx. 2 h continuous use), charging time approx. 5 h AC adapter 100 - 240 V AC, adapter (EU, USA, UK)
Housing material:	Aluminium
Housing dimensions: (with vacuum base)	208 x 80 (124) x 106 mm (L x W x H)
Weight, device (base):	Approx. 840 g (500 g)

* FS = Full Scale